REMARKS

This application has been carefully reviewed in light of the Office Action dated June 6, 2005. Claims 1-9 remain in this application. Claims 1, 3, 5 and 8 are the independent claims. Reconsideration and entrance of the amendment in the application are respectfully requested.

Art-Based Rejections

Claims 1-9 were rejected under 35 U.S.C. §102(e) over USPN 3,100,871 (Richardson). Applicant respectfully traverses these rejections and submits that the claims, as originally filed, are patentable in light of the arguments below.

The Richardson Reference

Richardson is directed to a single side band communication system for mobile communication of audio signals in the VHF range of 160 megacycles. Modulation information, such as an audio signal from a microphone 10, is applied to the audio frequency amplifier. *(See, Richardson; FIG. 1; Col. 3, lines 31-59).*

The Claims are Patentable Over the Cited References

The present application is generally directed to a single side band (SSB) radio communication system.

As defined by independent Claim 1, an SSB radio communication system includes amplitude modulating a carrier wave in a transmitting side by using modulation pulse signals. The modulation pulse signals include a constant amplitude, sine wave shaped reference pulse signal having a predetermined width and period, and sine wave shaped modulation pulse signals having the same width as the reference pulse signal and amplitudes representing two- or multi-value digital values based on the amplitude of the reference pulse signal. The amplitude

modulated signals are transmitted on a single side band. Gains of received signals in a receiving side, which are values of peaks of the received signals based on the reference pulse signal, are automatically adjusted.

The applied reference does not disclose or suggest the above features of the present invention as defined by independent Claim 1. In particular, the applied references do not disclose or suggest, "amplitude modulating a carrier wave in a transmitting side by using modulation pulse signals, wherein the modulation pulse signals comprise a constant amplitude, sine wave shaped reference pulse signal having a predetermined width and period, and sine wave shaped modulation pulse signals having the same width as the reference pulse signal and amplitudes representing two- or multi-value digital values based on the amplitude of the reference pulse signal," as required by independent Claim 1.

Richardson is directed to a single-side band (SSB) communication system for transmission of analog signals, such as audio signals from a microphone. *(See Richardson, Col. 3, lines 31-34).* In Richardson, references to transmission signals are references to audio signals, which are analog signals. Richardson is not concerned with the transmission of digital signals or digital data. Moreover, modulation signals on the transmitting side of Richardson are continuative audio signals. The carrier is SSB modulated by an audio signal, and carrier injection is provided with SSB modulated wave at the input of converter 20. This carrier is obtained from oscillator 16. *(See Richardson, Col. 3, lines 41-44).*

In contrast, the present invention concerns the efficient transmission of digital data and values via an SSB radio communication system that transmits modulated digital signals. *(See Specification, Page 3, line 24 to Page 4, line 2).* In the present invention, the transmission signals are digital signals represented by amplitude. Moreover, modulation signals on the transmitting side are reference

pulse signals and modulation pulse signals. The reference pulse signal is constructed to have predetermined width and predetermined period. The modulation pulse signal has amplitude representing two or multi-value digital values and is formed based on the amplitude of the reference pulse signal, as required by independent Claim 1 of the present invention. In other words, the modulation signals have amplitudes representing multi-values of digital signals formed by using the width that is similar to the amplitude of the reference pulse signal. *(See Specification, Page 12, lines 9-23).*

Richardson does not disclose or suggest these features of the present invention as required by independent Claim 1. Therefore, since the applied reference does not disclose or suggest the above features of the present invention as required by independent Claim 1, that reference cannot be said to anticipate nor render obvious the invention which is the subject matter of independent Claim 1.

Accordingly, independent Claim 1, is believed to be in condition for allowance and such allowance is respectfully requested.

Independent Claims 3, 5 and 8, are also believed to be in condition for allowance for at least the same reasons as discussed above with reference to independent Claim 1.

The remaining Claims 2, 4, 6-7, and 9 depend either directly or indirectly from independent Claims 1, 3, 5 and 8 and recite additional features of the invention which are neither disclosed nor fairly suggested by the applied reference, and are also believed to be in condition for allowance and such allowance is respectfully requested.

Conclusion

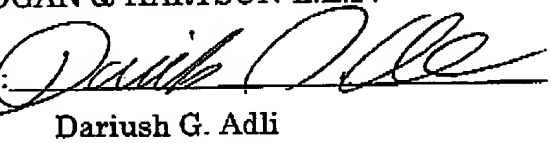
In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as originally filed, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6809 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: September 6, 2005

By: 

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